

C. SCHOTTLE.
HARROWS.

No. 182,487.

Patented Sept. 19, 1876.

Fig. 1.

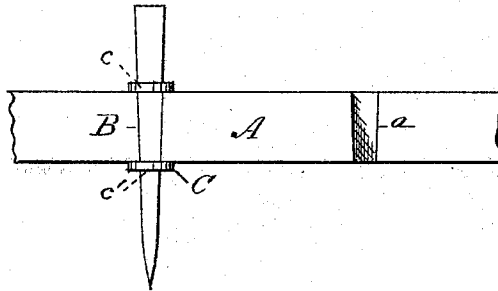


Fig. 2.

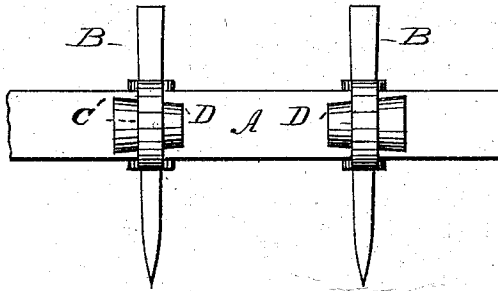


Fig. 3.

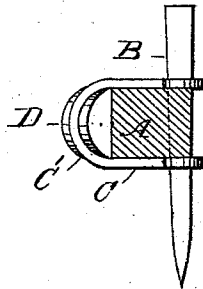
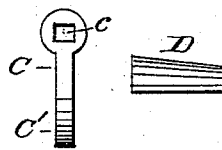


Fig. 4.



WITNESSES:
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UNITED STATES PATENT OFFICE.

CHRISTOPH SCHÖTTLER, OF GREENVILLE, WISCONSIN.

IMPROVEMENT IN HARROWS.

Specification forming part of Letters Patent No. 182,487, dated September 19, 1876; application filed August 26, 1876.

To all whom it may concern:

Be it known that I, CHRISTOPH SCHÖTTLER, of Greenville, in the county of Outagamie and State of Wisconsin, have invented a new and Improved Harrow; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a front elevation; Fig. 2, a rear elevation. Figs. 3 and 4 are details.

The object of this invention is a mode of readily and securely attaching harrow-teeth in place; and it consists in fitting each tooth (which is long and tapering, with a square transverse section) into a similar-shaped vertical groove on one side of a beam of the harrow—a metallic strap or band rest, with one end above and one below each groove—the tooth passing through square openings in said ends. The middle part of the strap or band forms a semicircle on the side of the beam opposite the groove and tooth, in which semicircle is driven a key, of the shape of half a

frustum of a cone, the key serving to hold all the parts tightly together.

In the drawing, A represents a beam of a harrow, provided with grooves *a a*, in which rest the teeth B B, the latter passing, above and below the groove, through the square holes *c c'* in the ends of the strap or band C. C' is the bend of the strap, into which is driven the key D, of the shape of half a frustum of a cone, this shape allowing it to be driven farther in the bend when the parts work or wear loose.

Having thus described my invention, what I claim as new is—

The combination, with a harrow, of the beam A, provided with grooves *a*, teeth B, strap or band C, and key D, all constructed and arranged substantially as shown and described, for the purpose specified.

CHRISTOPH SCHÖTTLER. [L. S.]

Witnesses:

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